

**IN THE CLAIMS**

The following is a complete listing of revised claims with a status identifier in parenthesis.

**LISTING OF CLAIMS**

1. (Previously Presented) A system comprising:  
a first type of network element (NE) comprising;  
a port for connection to another network element, the port configured to support at least one transport level overhead message wherein the first type of NE is configured to;  
transmit a request for port identification to one of a plurality of second type of NEs, receive a request for port identification from one of a plurality of the second type of NEs, and transmit a port detection signal in response to the received port identification wherein each of the requests and detection signal is transferred over an out of band channel.
2. (Previously Presented) The system of claim 1 wherein the first type of NE is further configured to transmit the request for port identification to a first type of leader NE.
3. (Previously Presented) The system of claim 1 further comprising a first type of leader NE configured to place a request for port identification in a queue.

4. (Previously Presented) The system of claim 3 wherein the first type of leader NE is further configured to accept port identification requests from other first type of non-leader NEs and place them in the queue.

5.-6. (Cancelled)

7. (Previously Presented) The system of claim 1 wherein the first type of NE is a SONET NE.

8. (Previously Presented) The system of claim 1 wherein the first type of NE is an SDH NE.

9. (Previously Presented) The system of claim 1 wherein the first type of NE is a packet switching NE.

10. (Previously Presented) The system of claim 1 wherein the first type of NE is an ATM NE.

11. (Previously Presented) The system of claim 1 wherein the port detection signal is a SONET/SDH protection switching message.

12. (Previously Presented) The system of claim 1 wherein the first type of NE comprises a plurality of SONET/SDH ports and is further configured to poll a plurality of ports to detect which of the ports receives the port detection signal.

13. (Previously Presented) The system of claim 1 wherein the first type of NE is further configured to store port binding information in response to the port detection signal.

14. (Previously Presented) The system of claim 13 wherein the first type of NE is further configured to transmit the port binding information to an associated, first type of leader NE.

15. (Previously Presented) The system as in claim 1 further comprising:

a plurality of first and second type of NEs, each of the NEs including:

a port for connection to a first or second type of network element, the port configured to support at least one transport level overhead message wherein each NE is configured to;

transmit a request for port identification to one of a plurality of the first or second type of NE, receive a request for port identification from one of the plurality of the first or second type of NE, and transmit a port detection signal

in response to the received port identification request wherein each of the requests and detection signal is transferred over an out of band channel.

16-28. (Cancelled)

29. (Previously Presented) The system as in claim 1 wherein the first and second type of NE is selected from the group consisting of a circuit switched NE and a packet switched NE.

30. (Previously Presented) A method comprising:  
configuring a port of a first type of network element (NE) to support at least one transport level overhead message;  
transmitting a request for port identification to one of a plurality of second type of NEs;  
receiving a request for port identification from one of the plurality of the second type of NEs; and  
transmitting a port detection signal in response to the received port identification request wherein each of the requests and detection signal is transferred over an out of band channel.

31. (Previously Presented) The method of claim 30 further comprising transmitting the request for port identification to a first type of leader NE.

32. (Previously Presented) The method of claim 30 further comprising placing a request for port identification in a queue.

33. (Previously Presented) The method of claim 32 further comprising accepting port identification requests from other first type of non-leader NEs and placing them in the queue.

34. (Previously Presented) The method of claim 30 wherein the first type of NE is a SONET NE.

35. (Previously Presented) The method of claim 30 wherein the first type of NE is an SDH NE.

36. (Previously Presented) The method of claim 30 wherein the first type of NE is a packet switching NE.

37. (Previously Presented) The method of claim 30 wherein the first type of NE is an ATM NE.

38. (Previously Presented) The method of claim 30 wherein the port detection signal is a SONET/SDH protection switching message.

39. (Previously Presented) The method of claim 30 wherein the first type of NE comprises a plurality of SONET/SDH ports, the method further comprising polling a plurality of ports to detect which of the ports receives the port detection signal.

40. (Previously Presented) The method of claim 30 further comprising storing port binding information in response to the port detection signal.

41. (Previously Presented) The method of claim 40 further comprising transmitting the port binding information to an associated, first type of leader NE.